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AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. - 6. (Canceled)

7. (New) Method for examining a blood vessel, comprising laser Doppler scanning a blood vessel thereby to determine exterior diameter thereof and interior diameter thereof and, from the foregoing, vascular wall thickness of the blood vessel.

8. (New) Method according to claim 7, wherein the determination of the exterior diameter is from data collected in a reflectivity image resulting from the laser Doppler scanning.

9. (New) Method according to claim 8, wherein the determination of the interior diameter is from data determining diameter of a moving blood column in the vessel.

10. (New) Method according to claim 9, wherein the data determining diameter of a moving blood column is data collected in a laser Doppler image resulting from the laser Doppler scanning.

11. (New) Method according to claim 10, wherein the vascular wall thickness is determined by determining a difference between data collected in the reflectivity image and data collected in the laser Doppler image.

12. (New) Method according to claim 7, wherein the vessel is of an eye.

13. (New) Method according to claim 12, wherein the vessel is of a retina.

14. (New) Apparatus for examining a blood vessel to determine vascular wall thickness thereof comprising a laser Doppler scanner for producing a first image or a first set of data corresponding to the first image relating to exterior diameter of the vessel and a second image or a second set of data corresponding to the second image relating to interior diameter of the vessel and an evaluation unit for determining vascular wall thickness of the vessel from the first and second images or sets of data.

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15. (New) Apparatus according to claim 14, wherein the laser Doppler scanner is for producing the second image or the second set of data by determining diameter of a moving blood column in the vessel.

16. (New) Apparatus according to claim 14 or 15, further comprising a computer for said determining the vascular wall thickness from said first and second images or sets of data.

17. (New) Apparatus according to claim 14 or 15, wherein the laser Doppler scanner is for producing the images or the data corresponding thereto of a blood vessel of an eye.

18. (New) Apparatus according to claim 14 or 15, wherein the laser Doppler scanner is for producing the images or the data corresponding thereto of a blood vessel of a retina.